

(19)

JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 10085565 A

(43) Date of publication of application: 07.04.1998

(51) Int. Cl. B01D 63/08
B01D 65/02, C02F 1/44

(21) Application number: 08247961
(22) Date of filing: 19.09.1996

(71) Applicant: YAMADA KOGYO KK
(72) Inventor: MATSUNAGA KAZUSHIGE
HASUI KOJI

(54) MEMBRANE SEPARATOR

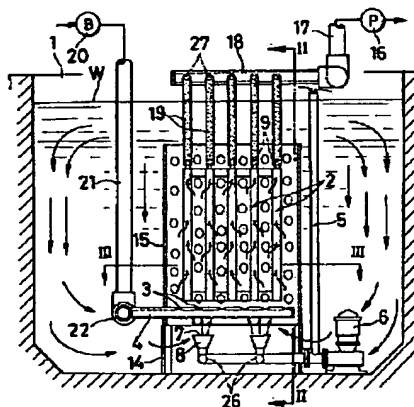
(57) Abstract:

PROBLEM TO BE SOLVED: To operate stably a treatment tank for a long period of time without the membrane cleaning work and carry out the high concentration condensation of foul water by disposing an air diffuser pipe with an upward air jet hole on the upper section and a diffuser with an upward discharge hole on the lower section below membrane modules.

SOLUTION: Vertical plane membrane modules 2 are immersed in parallel in water to be treated in a treatment tank 1. An air diffuser pipe 4 having an air suction pipe 5 and an upward air jet hole 3 is disposed on the upper section and a diffuser 8 with an upward discharge hole 7 of an ejector 6 using the water to be treated as operating water is disposed on the lower section below the plane membrane modules 2. Then ultrafine foames are jetted out of the diffuser 8 together with the water to be treated as operating water in ad-

dition to comparatively large foams from the diffuser 4. Both foams are moved upward along the modules 2 to generate the turbulent flow, remove slag to be likely to adhere to the membrane surfaces and prevent the growth of slag.

COPYRIGHT: (C)1998,JPO



BEST AVAILABLE COPY